

# Vermont Forest Health

## Insect and Disease Observations—July 2015

Department of Forests, Parks & Recreation  
July 2015  
[vtforest.com](http://vtforest.com)

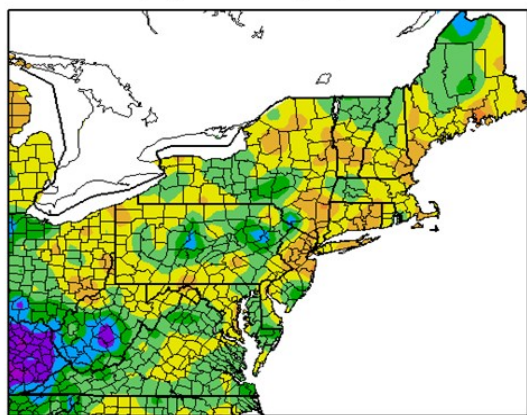
### July Kicked off with Flash Flood Watches

July started off on a wet note, continuing the trend set in June. On July 1, 1.95" of rain fell in Burlington, 21% of normal monthly total! Much of the month saw the threat of severe weather on a frequent basis. These storms were generally scattered in nature, with some areas not hit at all and other areas hit more than once. With the rain in June and the scattered rain in July, spring drought/abnormally dry conditions that were in place for much of the state were substantially reduced. On July 7, only western Bennington County remained abnormally dry. The following week, all dry conditions were lifted.

July 19th was memorable for many Vermonters as scattered severe storms with heavy rain, hail, strong winds, and torrential rain caused localized flash flooding in eastern/central VT. Plainfield and Barre Town were the hardest hit with washed out roads and damage to bridges. Road closures remain where the damage was the greatest. Barre City had street and basement flooding. When the water receded, thick mud that later turned to dust covered the main streets. Downed trees and powerlines were also reported during this storm with over 7,000 power outages across the state.

As Julys go, this one was on the mild side temperature-wise with monthly averages near normal. That said, we had a few extremes in July. No records were broken, but low temperatures on July 16th dropped to the 40's and low 50's with even some upper 30's in the coldest parts of the state. Temperatures were below normal for much of the month until July 27 when a stretch of hazy, hot and humid weather settled in for a few days.

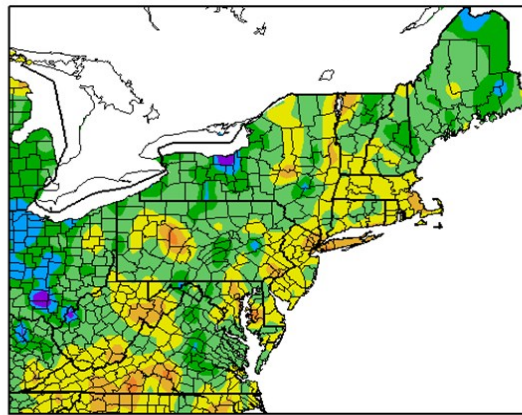
Departure from Normal Precipitation (in)  
7/1/2015 – 7/31/2015



Generated 8/2/2015 at HPRCC using provisional data.

Regional Climate Centers

Departure from Normal Temperature (F)  
7/1/2015 – 7/31/2015



Generated 8/2/2015 at HPRCC using provisional data.

Regional Climate Centers

*July precipitation was above normal in the north and below normal in the southern counties. Below-normal average temperatures leveled out with the July 27 arrival of hot, humid days. (Data generated at [HPRCC](http://HPRCC).)*



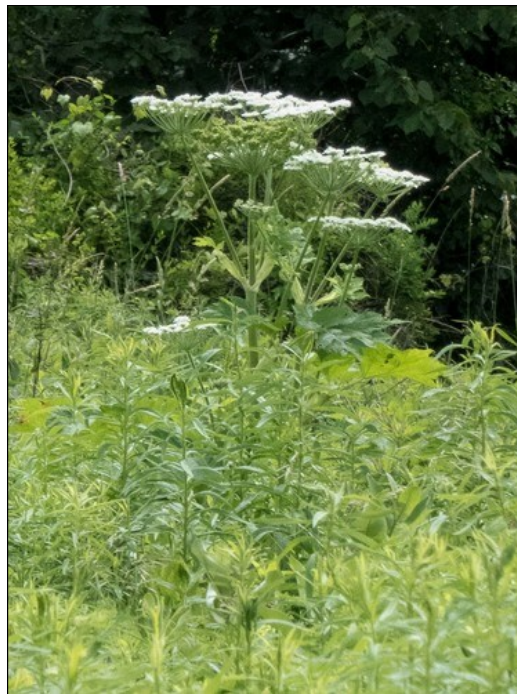
## They might be giants, but one is a native look-a-like

July's featured invasive plant is Giant Hogweed (*Heracleum mantegazzianum*). This plant, which reaches heights of 7-20 ft., with leaves up to 5 ft. across, flower clusters up to 2.5 ft. across, and stems with purple splotches, was introduced in the early 20th century, originating from the Caucasus Mountains and Asia. When July rolls around in Vermont, suspected sightings of this plant often increase because also in bloom is a native look-a-like, American Cow-Parsnip (*Heracleum maximum*).

A few quick ways to determine what you're observing include general size (hogweed is truly towering), the shape of the flower clusters (hogweed has an "umbrella" shape, cow-parsnip is "flat topped"), presence of coarse white hairs at the base of the leaf stalk (cow-parsnip lacks these coarse almost beard-like hairs), and number of rays within the flower cluster (hogweed has 50 or more rays within the flower cluster while cow-parsnip has only 15-30). Here is a great resource to compare other look-a-likes to hogweed: [NYDEC: http://www.dec.ny.gov/animals/72766.html](http://www.dec.ny.gov/animals/72766.html).

While contact with both American Cow-Parsnip and Giant Hogweed can cause a rash or burn, [hogweed sap can trigger a severe chemical reaction on exposed skin](#), and even cause blindness. Brushing up against this plant can transfer sap. This is more worrisome than exposure to wild parsnip, wild chervil or cow parsnip, where you have to break the plant tissue to come in contact with the sap. [Hogweed is a federally listed noxious weed](#).

If you think you've found giant hogweed, contact E. Spinney at [elizabeth.spinney@vermont.gov](mailto:elizabeth.spinney@vermont.gov)



The "umbrella" shaped flower of giant hogweed (left, [D. Ellis](#)). The "flat-topped" flower of American cow-parsnip (middle, [J. Lincoln](#)). Giant hogweed towers over humans and houses (right, [T. English](#)).



## Good Year for Fruit

The heavy flowering reported for some species earlier this growing season has translated into a very good year for nuts and fruits. There are heavy crops of blueberries, raspberries and black raspberries in many parts of the state, and beechnuts are having a banner year in some locations.

Beech fruit galore! Photo: [R. Thorn](#)



## Trees with Wet Feet and Wet Foliage

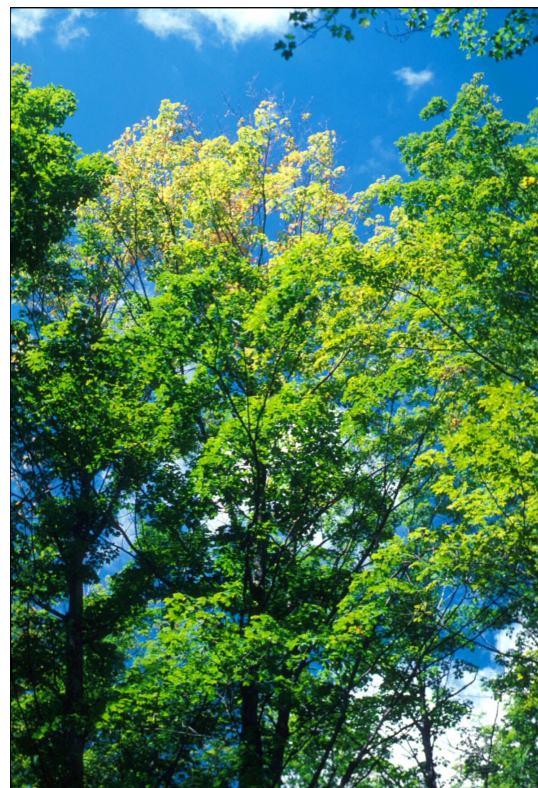
While trees on well-drained sites generally look good, those on poor sites in wet areas are showing signs of stress. Recurrent and uninterrupted flooding can keep soils saturated and may reduce the supply of oxygen to the soil and roots. In some flooded areas, roots have become exposed and are subsequently vulnerable to drying and mechanical injury. Increased vulnerability to wind-throw can result.

Symptoms of flood-stressed trees include chlorotic foliage, defoliation, reduced leaf size and shoot growth, epicormic sprouting (sprouts along the stem or trunk), and crown dieback. Early fall coloration has already been noted in flooded areas. While bottomland species such as silver maple and elm are more tolerant to wet soils, upland species like sugar maple, beech and birch are less so.

For more on the effects of summer flooding on trees, visit our [Forest Health Library](#).

*Flooding in poorly-drained sites can limit soil aeration and jeopardize root growth. Nutrient uptake is affected and trees like this sugar maple may exhibit chlorosis.*

*Photo: R. Kelley*



Anthracnose has been reported on maples in southern and central Vermont. The presence of anthracnose spores, along with rainy periods and favorable moisture conditions, encourage the development of this foliar disease. Spores require wet weather to germinate and penetrate the leaves, and the disease can spread rapidly under desirable moisture regimes. (From a distance, leaves discolored by anthracnose infections may be confused with frost-damaged foliage, which is still evident at ~2000 feet elevation.)

Powdery mildew, another malady that is tied to ongoing high humidity but not necessarily heavy rainfall, is widespread. Mildew has been noted in trees as well as on garden plants such as phlox, cucurbits, roses, hydrangea, and other perennial flowers. Various other fungal leaf spots have also been reported.



*Anthracnose fungi need water in order to disseminate and infect (left); Powdery mildew, as shown here on oak, get nutrients by feeding through the leaf surface (center); Symptoms of a third disease, tar spot, tend to more common on trees in moist, sheltered locations. Photos: R. Kelley (left and right) and [M. Grabowski](#) (center).*



## Bark Lice

Several people have gotten a recent glimpse of bark lice on trunks and branches of both hardwoods and conifers. There are many species of [common bark lice](#). Specimens shown below are members of the family Psocidae, and represent one of 60 species in 14 genera of 2 subfamilies in our area! Bark lice feed on lichens, moss, algae, fungi, spores, pollen and possibly the remains of other insects found on the tree's bark. They are often found in aggregations and move en masse when disturbed. The adults hold their wings in a roof-like position. The long antennae are obvious in both immatures and adults.



*This "herd" of immature bark lice (*Cerastipsocus venosus*) was observed in Milton, VT. Some adult bark lice have elaborate courtship dances. Photos: J. Nerenberg (left) and [S. Cresswell](#) (below).*



## Redheaded Flea Beetle

The [Redheaded Flea Beetle](#) (*Systema frontalis*) has been observed feeding on the foliage of dogwood, hydrangea, and weigela in nursery settings. Adults chew holes in foliage, eventually shredding leaves. The larval stage feeds on roots.



*The redheaded flea beetle is often associated with common weed species. It is shown above feeding on eupatorium, also know as Joe Pye weed. Photos: [S. Alford](#) and [B. Kunkel](#)*



## Imported Willow Leaf Beetle

Very active [Imported Willow Leaf Beetle](#) (*Plagiodera versicolora*) populations have been observed in Orange and Lamoille Counties. Both larvae and adults feed on the host foliage; larvae skeletonize and adults chew holes in the leaves. When populations are heavy, trees can be turned completely brown.



*This image shows the yellow eggs of the Imported Willow Leaf Beetle, the metallic-blue adults, and the larvae, which may be cream-colored when they molt but darken gradually to black. Photo: R. Kelley.*

## Apple and Thorn Skeletonizer

Feeding by the [apple and thorn skeletonizer](#) (*Choreutis pariana*) has been observed on serviceberry in Hyde Park. Other hosts include apple, birch, cherry, hawthorn, mountain ash and willow. Larvae first feed on the lower surface of the leaves, then move to the upper surface where they create a shelter by tying leaves together. The adult is a small moth, with a wingspan of about 1/2 inch.



*Larva and adult of the Apple and Thorn Skeletonizer.*

*Photos: [N. Smith](#) & [E. LaGasa](#)*

## Maple Leafcutter

Evidence of [maple leafcutter](#) (*Paraclemensia acerifoliella*) has generally been uncommon for the past couple of years. In July, we received a report of significant feeding ("more than ever before") from Lamoille County. The larvae, in their tortilla-like leaf cases, feed until late August or early September. The caterpillars then climb down the trees, with their mobile cases intact, to pupate in leaf litter.

*Sugar maple leaves with heavy maple leafcutter damage. Photo: R. Kelley*



## Mourning Cloak Caterpillars with Long-Lived Adults

Caterpillars of the [mourning cloak butterfly](#) (*Nymphalis antiopa*) have been observed feeding on willow in Ferdinand, VT. Other hosts of this species include aspen, cottonwood, elm, and hackberry. Larvae feed gregariously, eventually pupating and reaching the adult stage in midsummer. Overwintering in the adult stage, mourning cloaks are our longest-lived butterflies, spending 10 or more months in the winged form.



*The gregarious larvae of the mourning cloak sometimes thrash around as they feed. The person who observed these said that as she walked up to the host tree, the larvae could be seen "flicking, but not all at same time."* Photos: K. Decker and R. Kelley

## Pretty and Not So Pretty: Erineum Gall and Birch Leafminer

The velvety patches caused by the microscopic [velvet erineum gall mite](#) (*Eriophyes* sp.) can be quite showy. The raised, felt-like areas occur when the female mites stimulate leaf cells to develop abnormally. The health of the maple is not affected.

In contrast, feeding by [birch leafminer](#) (*Fenusa pusilla* and others), which is showing up in some locations, has less appeal. Mines start small but as they become larger, they eventually merge, causing leaves to appear brown and distorted.



*Erineum gall on sugar maple in Williamstown (right) and blotch mines of the birch leafminer (left). Photos: T. Greaves and [E.B. Walker](#)*



**For more information,  
contact the Forest  
Biology Laboratory  
at 802-879-5687 or:**

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